

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

- 1-7 (Canceled)
- 8. (Previously presented) A method for producing a construct by seamlessly joining solid objects made up of certain sized particles, the method comprising:
 - a) supplying a joint compound having particle sizes smaller than the certain sized particles;
 - b) applying the joint compound to opposing surfaces of the objects to be joined together;
 - c) heating the joint to a heating temperature of between 1000 °C and 1350 °C; and
 - d) applying pressure to the solid objects so as to direct the opposing surfaces toward each other, wherein the joint compound is applied to a thickness that is at least five times the dimension of the largest particles contained in the joint compound, wherein superplastic deformation occurs between the objects and the joint compound and wherein the heating temperature is 0.5 to 0.7 the melting temperature of the lowest melting point constituent of the construct.
- 9. (Previously Presented) A method for producing a construct by seamlessly joining solid objects made up of certain sized particles, the method comprising:
 - a) supplying a joint compound having particle sizes smaller than the certain sized particles;
 - b) applying the joint compound to opposing surfaces of the objects to be joined together;

- c) heating the joint to a heating temperature of between 1000 °C and 1350 °C; and
- d) applying pressure to the solid objects so as to direct the opposing surfaces toward each other, wherein the joint compound is applied to a thickness that is at least five times the dimension of the largest particles contained in the joint compound, wherein superplastic deformation occurs between the objects and the joint compound and wherein the applied pressure and heating temperature are applied at an inverse relationship to each other.

10. (Canceled)

11. (Previously Presented) A method for producing a construct by seamlessly joining solid objects made up of certain sized particles, the method comprising:

- a) supplying solid objects wherein the solid objects are two-phase bodies and wherein the volume percent of one phase to the other phase varies from 2 to 98;
- b) supplying a joint compound having particle sizes smaller than the certain sized particles;
- c) applying the joint compound to opposing surfaces of the objects to be joined together;
- d) heating the joint to a heating temperature of between 1000 °C and 1350 °C; and
- e) applying pressure to the solid objects so as to direct the opposing surfaces toward each other, wherein the joint compound is applied to a thickness that is at least five times the dimension of the largest particles contained in the joint compound, wherein superplastic deformation occurs between the objects and the joint compound.

12-24 (Canceled)

25. (Previously Presented) The method as recited in claim 8 wherein the construct is heated to approximately 50-60 percent of the melting temperature of the lowest melting temperature constituent.

26. (Currently Amended) The method as recited in claim 8 wherein a constituent of the joint compound or the objects comprise 65 percent or more by volume of a phase that exhibits superplastic flow at the heating temperature, and wherein the largest particle of the phase is no more than 10 ~~mm~~ microns.

27. (Previously Presented) The method as recited in claim 8 wherein up to 35 volume percent of the joint compound contains fibers as long as 500 microns and 65 volume percent of the joint compound comprises a phase that exhibits superplastic flow at the heating temperature and wherein the largest particles of the phase are no more than 5 microns.

28. (Cancelled)

29. (Cancelled)

30. (Previously Presented) The method as recited in claim 8 whereby the temperature is 1350 °C.

31. (Previously Presented) The method as recited in claim 9 wherein the construct is heated to approximately 50-60 percent of the melting temperature of the lowest melting temperature constituent.

32. (Currently Amended) The method as recited in claim 9 wherein a constituent of the joint compound or the objects comprise 65 percent or more by

volume of a phase that exhibits superplastic flow at the heating temperature, and wherein the largest particle of the phase is no more than 10 ~~mm~~ microns.

33. (Previously Presented) The method as recited in claim 9 wherein up to 35 volume percent of the joint compound contains fibers as long as 500 microns and 65 volume percent of the joint compound comprises a phase that exhibits superplastic flow at the heating temperature and wherein the largest particles of the phase are no more than 5 microns.